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GSFC OPERATIONS CONTROL CENTER

SATELLITE SITUATION REPORT

VOL. 6, NO. 7

APRIL 15, 1966



GODDARD SPACE FLIGHT CENTER
GREENBELT, MD.

GSFC OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 6, NO. 7 APRIL 15, 1966

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY THE GODDARD SPACE FLIGHT CENTER, NORAD, AND THE SMITHSONIAN ASTROPHYSICAL OBSERVATORY AS OF 1200Z ON APRIL 15, 1966.

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1958 LAUNCHES									
ALPHA 1	EXPLORER 1	004	US	1 FEB	103.7	33.18	1521	338	
BETA 1	ROCKET BODY	016	US	17 MAR	138.4	34.26	4316	651	
BETA 2	VANGUARD 1	005	US	17 MAR	134.0	34.24	3938	653	
BETA 3		1576	US	17 MAR	132.7	34.24	3826	645	
1959 LAUNCHES									
ALPHA 1	VANGUARD 2	011	US	17 FEB	125.4	32.85	3285	555	
ALPHA 2	ROCKET BODY	012	US	17 FEB	129.7	32.90	3655	557	
ETA 1	VANGUARD 3	020	US	18 SEP	129.8	33.33	3715	511	
MU 1	LUNIK 1	112	USSR	2 JAN	HELIOCENTRIC ORBIT				
NU 1	PIONEER 4	113	US	3 MAR	HELIOCENTRIC ORBIT				
IOTA 1	EXPLORER 7	022	US	13 OCT	101.1	50.30	1074	550	
IOTA 2	ROCKET BODY	023	US	13 OCT	100.9	50.31	1051	550	
1960 LAUNCHES									
ALPHA 1	PIONEER 5	027	US	11 MAR	HELIOCENTRIC ORBIT				
BETA 1	ROCKET BODY	028	US	1 APR	99.1	48.38	742	689	
BETA 2	TIROS 1	029	US	1 APR	99.2	48.38	744	695	
BETA 3	NONE	101	US	1 APR	97.9	48.49	696	615	
BETA 4	NONE	115	US	1 APR	99.9	48.16	803	701	
GAMMA 2	TRANSIT 1B	031	US	13 APR	93.4	51.21	538	342	
GAMMA 4	NONE	099	US	13 APR	96.7	51.25	722	478	
ZETA 1	MIDAS 2	043	US	24 MAY	94.3	33.04	489	472	
ETA 1	TRANSIT 2A	045	US	22 JUN	101.6	66.70	1059	612	
ETA 2	GREB	046	US	22 JUN	101.6	66.70	1056	612	
ETA 3	ROCKET BODY	047	US	22 JUN	101.4	66.70	1043	607	
ETA 4		840	US	22 JUN	101.5	66.69	1051	612	
ETA 5		841	US	22 JUN	101.5	66.69	1048	612	

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OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1960 LAUNCHES (CONT'D)									
IOTA 1	ECHO I	049	US	12 AUG	112.9	47.31	1791	922	
IOTA 2	ROCKET BODY	050	US	12 AUG	118.1	47.22	1684	1503	
IOTA 3	METAL OBJECT	051	US	12 AUG	118.2	47.25	1689	1514	
IOTA 4	METAL OBJECT	052	US	12 AUG	CURRENT ELEMENTS NOT MAINTAINED				
IOTA 5	METAL OBJECT	053	US	12 AUG	118.4	47.34	1682	1538	
NU 1	COURIER 1B	058	US	4 OCT	107.0	28.32	1213	962	
NU 2	ROCKET BODY	059	US	4 OCT	106.6	28.24	1206	925	
XI 1	EXPLORER 8	060	US	3 NOV	112.2	49.95	2239	417	
XI 2	ROCKET BODY	062	US	3 NOV	111.7	49.96	2190	418	
XI 3	NONE	069	US	3 NOV	108.4	49.39	1905	400	
XI 4	NONE	105	US	3 NOV	110.0	50.49	2032	418	
PI 1	TIROS 2	063	US	23 NOV	98.2	48.51	728	619	
PI 2	ROCKET BODY	064	US	23 NOV	98.1	48.52	717	616	
PI 3	NONE	074	US	23 NOV	98.1	48.52	718	620	
PI 4	NONE	075	US	23 NOV	98.3	48.52	732	620	
1961 LAUNCHES									
ALPHA 1	SAMOS 2	070	US	31 JAN	94.7	97.38	541	466	
ALPHA 2	METAL OBJECT	079	US	31 JAN	94.6	97.38	534	462	
GAMMA 1	VENUS PROBE	080	USSR	12 FEB	HELIOCENTRIC ORBIT				
DELTA 2	ROCKET BODY	082	US	16 FEB	118.5	38.85	2592	634	
DELTA 3	NONE	085	US	16 FEB	CURRENT ELEMENTS NOT MAINTAINED				
KAPPA 1	EXPLORER 10	098	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	107	US	27 APR	107.9	28.78	1777	480	
OMICRON 1	TRANSIT 4A	116	US	29 JUN	103.8	66.81	999	881	$54$324$150$40(
OMICRON 2	INJUN-SR-3	117	US	29 JUN	103.8	66.84	1003	877	
OMICRON 3-212**	METAL OBJECTS		US	29 JUN					
RHO 1	TIROS 3	162	US	12 JUL	100.4	47.90	818	737	
RHO 2	ROCKET BODY	165	US	12 JUL	100.3	47.90	804	743	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1961 LAUNCHES (CONT'D)									
RHO 3	METAL OBJECT	166	US	12 JUL	98.8	47.93	791	613	
RHO 4	METAL OBJECT	167	US	12 JUL	102.0	47.86	931	774	
SIGMA 1	MIDAS 3	163	US	12 JUL	161.5	91.26	3547	3344	
SIGMA 3	METAL OBJECT	188	US	12 JUL	161.1	91.21	3542	3321	
SIGMA 4	METAL OBJECT	196	US	12 JUL	161.9	91.22	3573	3351	
UPSILON 1	EXPLORER 12	170	US	16 AUG	CURRENT ELEMENTS NOT MAINTAINED				
A DELTA 1	MIDAS 4	192	US	21 OCT	166.0	95.85	3751	3502	
A DELTA 3	METAL OBJECT	194	US	21 OCT	165.6	95.85	3740	3481	
A DELTA 4	METAL OBJECT	195	US	21 OCT	166.4	95.86	3804	3483	
A DELTA 5		2009	US	21 OCT	165.7	95.82	3731	3502	
A ETA 1	TRANSIT 4B	202	US	15 NOV	105.8	32.42	1105	954	
A ETA 2	TRAAC	205	US	15 NOV	105.8	32.42	1104	957	
A ETA 3	ROCKET BODY	204	US	15 NOV	105.6	32.43	1098	948	
1962 LAUNCHES									
ALPHA 1	RANGER 3	221	US	26 JAN	HELIOCENTRIC ORBIT				
ALPHA 2	ROCKET BODY	222	US	26 JAN	HELIOCENTRIC ORBIT				
BETA 1	TIROS 4	226	US	8 FEB	100.4	48.31	839	712	
BETA 2	ROCKET BODY	227	US	8 FEB	101.4	48.13	942	702	
BETA 3	METAL OBJECT	228	US	8 FEB	99.5	48.42	762	703	
BETA 4	METAL OBJECT	229	US	8 FEB	100.3	48.29	837	706	
ZETA 1	ORB.SOL.OBS. 1	255	US	7 MAR	96.0	32.83	579	554	
ZETA 2	ROCKET BODY	257	US	7 MAR	96.0	32.83	581	545	
KAPPA 1		271	US	9 APR	153.0	86.64	3411	2786	
KAPPA 3		273	US	9 APR	152.6	86.65	3371	2795	
KAPPA 4		274	US	9 APR	153.3	86.65	3426	2800	
MU 2	ROCKET BODY	282	US	23 APR	HELIOCENTRIC ORBIT				
OMICRON 1	ARIEL	285	US/UK	26 APR	100.3	53.84	1161	386	136.405
OMICRON 2	ROCKET BODY	288	US	26 APR	100.1	53.86	1144	386	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
A ALPHA 1	TIROS 5	309	US	19 JUN	100.5	58.12	973	590	
A ALPHA 2	ROCKET BODY	311	US	19 JUN	100.4	58.12	963	589	
A ALPHA 3	METAL OBJECT	312	US	19 JUN	101.7	58.21	1081	601	
A ALPHA 4	METAL OBJECT	313	US	19 JUN	99.1	58.00	855	574	
A EPSILON 1	TELSTAR 1	340	US	10 JUL	157.8	44.81	5645	943	
A EPSILON 2	ROCKET BODY	341	US	10 JUL	157.6	44.79	5634	940	
A OMICRON 1		369	US	23 AUG	99.5	98.69	856	618	
A OMICRON 2		370	US	23 AUG	98.2	98.60	748	600	
A OMICRON 3		378	US	23 AUG	100.8	98.77	973	620	
A OMICRON 4		388	US	23 AUG	99.5	98.69	854	617	
A RHO 1	MARINER 2	374	US	27 AUG	HELIOCENTRIC ORBIT				
A RHO 2	ROCKET BODY	375	US	27 AUG	HELIOCENTRIC ORBIT				
A PSI 1	TIROS 6	397	US	18 SEP	98.7	58.30	710	687	
A PSI 2	ROCKET BODY	398	US	18 SEP	98.6	58.30	706	684	
A PSI 3	METAL OBJECT	399	US	18 SEP	99.4	58.45	775	683	
A PSI 4	METAL OBJECT	400	US	18 SEP	98.0	58.21	693	635	
B ALPHA 1	ALOUETTE	424	CANADA	29 SEP	105.5	80.48	1034	1002	$136.591$136.078
B ALPHA 2	ROCKET BODY	426	US	29 SEP	105.4	80.47	1028	1003	
B ALPHA 3	METAL OBJECT	510	US	29 SEP	105.4	80.51	1024	1001	
B ALPHA 4	METAL OBJECT	511	US	29 SEP	105.5	80.43	1051	985	
B GAMMA 1	EXPLORER 14	432	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B GAMMA 2#	ROCKET BODY	NNA	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B ETA 1	RANGER 5	439	US	18 OCT	HELIOCENTRIC ORBIT				
B ETA 2	ROCKET BODY	440	US	18 OCT	HELIOCENTRIC ORBIT				
B KAPPA 1		444	US	26 OCT	119.8	71.37	3140	199	
B LAMBDA 1	EXPLORER 15	445	US	27 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B LAMBDA 2#	ROCKET BODY	NNA	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	446	US	31 OCT	107.9	50.13	1183	1076	$162$324
B MU 2	ROCKET BODY	447	US	31 OCT	107.6	50.21	1161	1072	
B NU 3		450	USSR	1 NOV	HELIOCENTRIC ORBIT				

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
B TAU 1		502	US	13 DEC	101.6	70.30	1438	225	
B TAU 2	INJUN 3	504	US	13 DEC	108.9	70.33	2108	236	
B TAU 5		513	US	13 DEC	101.4	70.27	1418	227	
B TAU 6		520	US	13 DEC	107.5	70.30	1979	238	
B UPSILON 1	RELAY 1	503	US	13 DEC	185.1	47.48	7433	1325	$136.140;136.621
B UPSILON 2	ROCKET BODY	515	US	13 DEC	184.8	47.50	7416	1325	
B CHI 1	EXPLORER 16	506	US	16 DEC	104.4	52.04	1163	766	
B PSI 1	TRANSIT 5A	509	US	19 DEC	99.1	90.65	734	696	
B PSI 2		514	US	19 DEC	97.6	90.76	722	565	
B PSI 3		519	US	19 DEC	99.0	90.65	747	682	
B PSI 4		523	US	19 DEC	100.2	90.47	836	700	
1963 LAUNCHES									
1963 03A		527	US	16 JAN	94.3	81.89	515	460	
1963 04A	SYNCOM 1	553	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 04B	ROCKET BODY	532	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 05A		533	US	19 FEB	97.6	100.48	794	500	
1963 05B		534	US	19 FEB	97.7	100.45	794	502	
1963 05C		535	US	19 FEB	96.7	100.49	737	468	
1963 05D		536	US	19 FEB	98.3	100.49	831	524	
1963 08B		566	USSR	2 APR	BARYCENTRIC ORBIT				
1963 09A	EXPLORER 17	564	US	3 APR	92.5	57.60	555	236	
1963 13A	TELSTAR 2	573	US	7 MAY	225.3	42.76	10797	980	
1963 13B	ROCKET BODY	575	US	7 MAY	225.1	42.78	10779	977	
1963 14A		574	US	9 MAY	166.4	87.55	3681	3610	
1963 14B		579	US	9 MAY	166.4	86.64	4202	3088	
1963 14C		608	US	9 MAY	166.4	87.34	3696	3595	
1963 14D		589	US	9 MAY	CURRENT ELEMENTS NOT MAINTAINED				
1963 14E		602	US	9 MAY	166.1	87.34	3654	3609	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 14F		628	US	9 MAY	166.8	87.32	3662	3660	
1963 14G		629	US	9 MAY	166.4	87.34	3712	3578	
1963 14H		702	US	9 MAY	166.4	87.33	3681	3609	
1963 22A		594	US	16 JUN	99.7	90.01	756	734	$150$400
1963 22B		603	US	16 JUN	99.7	90.01	759	731	
1963 22C		610	US	16 JUN	101.2	90.21	891	742	
1963 22D		611	US	16 JUN	98.0	89.80	768	568	
1963 24A	TIROS 7	604	US	19 JUN	97.4	58.22	640	631	$136.233$136.924
1963 24B	ROCKET BODY	605	US	19 JUN	97.3	58.22	635	621	
1963 24C	METAL OBJECT	606	US	19 JUN	97.9	58.38	674	639	
1963 24D	METAL OBJECT	607	US	19 JUN	96.9	58.10	634	582	
1963 25B		614	US	27 JUN	132.0	82.13	4076	342	
1963 26A	RESEARCH SATELLITE FOR GEOPHYSICS	612	US	28 JUN	102.0	49.72	1289	414	
1963 27A		613	US	29 JUN	94.6	82.33	521	478	
1963 30A		622	US	18 JUL	167.8	88.44	3737	3668	
1963 30B		635	US	18 JUL	167.8	88.44	3737	3668	
1963 30C		630	US	18 JUL	167.5	88.44	3724	3652	
1963 30D		624	US	18 JUL	167.3	87.89	4692	2669	
1963 30E		631	US	18 JUL	168.3	88.44	3787	3652	
1963 31A	SYNCOM 2	634	US	26 JUL	1434.9	31.23	35803	35722	$136.467$136.980 $1814.069 $1815.794 $1820.177
1963 31B	ROCKET BODY	625	US	26 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1963 38A		669	US	28 SEP	107.1	89.90	1110	1077	
1963 38B		670	US	28 SEP	107.4	89.90	1138	1074	
1963 38C		671	US	28 SEP	107.3	89.90	1135	1075	$136.653$162$324
1963 38D		672	US	28 SEP	107.3	89.95	1130	1078	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 38E		745	US	28 SEP	107.1	89.96	1110	1075	
1963 38F		2097	US	28 SEP	107.3	89.95	1124	1084	
1963 39A		674	US	17 OCT	6490.7	37.80	117349	100421	
1963 39B		675	US	17 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1963 39C		692	US	17 OCT	6509.4	36.57	115176	103035	
1963 43A	POLYOT 1	683	USSR	1 NOV	102.2	58.91	1382	343	
1963 43B		684	USSR	1 NOV	97.2	58.59	929	313	
1963 43D		686	USSR	1 NOV	96.9	59.82	903	317	
1963 46A	EXPLORER 18	693	US	27 NOV	CURRENT ELEMENTS NOT MAINTAINED				
1963 47A	CENTAUR 2	694	US	27 NOV	107.8	30.36	1768	478	
1963 47B		696	US	27 NOV	107.2	30.05	1614	578	
1963 47C		697	US	27 NOV	107.4	30.06	1639	572	
1963 47D		698	US	27 NOV	108.0	29.91	1653	614	
1963 47E		699	US	27 NOV	108.6	30.44	1744	575	
1963 47F		700	US	27 NOV	108.6	30.46	1751	573	
1963 47G		701	US	27 NOV	107.8	30.00	1644	605	
1963 47H		739	US	27 NOV	105.9	30.41	1582	487	
1963 47J		1994	US	27 NOV	108.8	30.56	1763	574	
1963 49A		703	US	5 DEC	106.8	89.95	1089	1071	
1963 49B		704	US	5 DEC	107.1	89.95	1124	1066	$150$400
1963 49C		705	US	5 DEC	107.1	89.94	1124	1064	
1963 49D		706	US	5 DEC	107.0	89.93	1117	1066	
1963 49E		715	US	5 DEC	107.1	89.95	1122	1064	
1963 49F		753	US	5 DEC	107.1	89.97	1121	1068	
1963 53A	EXPLORER 19	714	US	19 DEC	115.0	78.66	2257	657	
1963 53B		721	US	19 DEC	115.8	78.60	2394	596	
1963 53C		722	US	19 DEC	115.8	78.71	2368	618	
1963 53D		723	US	19 DEC	115.8	78.53	2393	596	
1963 53E		724	US	19 DEC	115.9	78.59	2370	624	
1963 53F		725	US	19 DEC	115.7	78.63	2376	604	
1963 53G		726	US	19 DEC	115.7	78.56	2356	625	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 53H		732	US	19 DEC	115.7	78.62	2390	589	
1963 54A	TIROS 8	716	US	21 DEC	99.4	58.52	753	703	$136.231$136.924
1963 54B		717	US	21 DEC	99.3	58.55	743	706	
1963 54C		720	US	21 DEC	101.1	58.49	914	704	
1963 54D		736	US	21 DEC	97.7	58.54	700	594	
1964 LAUNCHES									
1964 01A		727	US	11 JAN	103.4	69.93	938	907	
1964 01B	GGSE	728	US	11 JAN	103.4	69.91	935	910	
1964 01C	EGRS 1	729	US	11 JAN	103.4	69.91	928	916	136.805
1964 01D	SOLAR RAD.	730	US	11 JAN	103.5	69.92	933	912	136.886
1964 01E		731	US	11 JAN	103.5	69.91	932	914	
1964 02A		733	US	19 JAN	101.3	99.15	851	790	
1964 02B		734	US	19 JAN	101.3	99.10	835	804	
1964 02C		735	US	19 JAN	101.3	99.10	832	811	
1964 03A	RELAY 2	737	US	21 JAN	194.7	46.33	7423	2076	136.620$136.142
1964 03B		738	US	21 JAN	194.8	46.33	7434	2071	
1964 04A	ECHO 2	740	US	25 JAN	108.0	81.53	1166	1198	136.019;136.170
1964 04B		741	US	25 JAN	108.9	81.50	1308	1048	
1964 04C		742	US	25 JAN	108.8	81.49	1308	1041	
1964 04D		743	US	25 JAN	108.8	81.53	1308	1039	
1964 05A	SATURN 5	744	US	29 JAN	89.7	31.44	285	215	
1964 06A	ELEKTRON 1	746	USSR	30 JAN	169.2	60.89	7108	405	
1964 06B	ELEKTRON 2	748	USSR	30 JAN	1356.3	58.43	66434	1986	
1964 06C		750	USSR	30 JAN	167.8	60.92	6993	406	
1964 06D		751	USSR	30 JAN	1384.1	58.49	67478	2046	
1964 11A		759	US	28 FEB	94.5	82.09	504	488	
1964 15A	ARIEL 2	771	US/UK	27 MAR	98.9	51.64	1127	286	136.557
1964 15B		775	US	27 MAR	97.9	51.69	1025	284	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 15C		847	US	27 MAR	102.7	51.38	1403	367	
1964 16D		785	USSR	2 APR	HELIOCENTRIC ORBIT				
1964 19B	POLYOT 2	784	USSR	12 APR	90.2	58.03	310	257	
1964 26A		801	US	4 JUN	103.1	90.52	951	860	$150$400
1964 26B		805	US	4 JUN	103.8	90.21	987	896	
1964 26C		806	US	4 JUN	102.3	90.88	946	791	
1964 26D		809	US	4 JUN	103.1	90.52	954	856	
1964 31A		812	US	18 JUN	101.6	99.74	839	830	
1964 31B		813	US	18 JUN	101.6	99.76	840	831	
1964 31C		815	US	18 JUN	101.6	99.81	844	824	
1964 35A		824	US	2 JUL	94.8	82.09	524	493	
1964 38A	ELECKTRON 3	829	USSR	10 JUL	168.1	60.93	7016	404	
1964 38B	ELECKTRON 4	830	USSR	10 JUL	1313.8	59.93	65414	1302	
1964 38C		831	USSR	10 JUL	168.3	60.89	7044	392	
1964 38D		832	USSR	10 JUL	1341.2	58.99	66509	1308	
1964 40A		836	US	17 JUL	6026.0	38.68	103902	102729	
1964 40B		837	US	17 JUL	6003.7	40.56	115626	90461	
1964 40C		838	US	17 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1964 41B		843	US	28 JUL	BARYCENTRIC ORBIT				
1964 45B		851	US	14 AUG	126.0	95.67	3619	273	
1964 47A	SYNCOM 3	858	US	19 AUG	1435.3	.72	35783	35759	$136.470$136.980 $1820.177 $1815.794 $1814.931
1964 47B		862	US	19 AUG	CURRENT ELEMENTS NOT MAINTAINED				
1964 49D	COSMOS 41	869	USSR	22 AUG	714.7	67.18	39253	944	
1964 49E		898	USSR	22 AUG	717.7	67.78	39383	966	
1964 51A	EXPLORER 20	870	US	25 AUG	103.9	79.91	1023	867	$136.326$136.350 $136.680
1964 51B		871	US	25 AUG	103.8	79.91	1014	870	
1964 51C		873	US	25 AUG	103.1	79.82	966	849	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 51D		874	US	25 AUG	103.2	79.82	991	822	
1964 51E		875	US	25 AUG	103.2	79.80	1023	804	
1964 52A	NIMBUS 1	872	US	28 AUG	98.2	98.72	925	426	
1964 52B		878	US	28 AUG	98.3	98.72	925	428	
1964 53A	COSMOS 44	876	USSR	28 AUG	99.5	65.10	863	609	
1964 53B		877	USSR	28 AUG	99.6	65.09	808	671	
1965 54A	OGO 1	879	US	5 SEP	3841.9	40.72	144824	4930	$136.200$400.250 $400.850
1964 60A	EXPLORER 21	889	US	4 OCT	CURRENTS ELEMENTS NOT MAINTAINED				
1964 63A		893	US	6 OCT	106.3	89.91	1080	1035	
1964 63B		897	US	6 OCT	106.6	89.90	1077	1061	
1964 63C		900	US	6 OCT	106.6	89.91	1082	1055	
1964 63D		901	US	6 OCT	106.6	89.90	1076	1067	
1964 63E		902	US	6 OCT	106.6	89.90	1079	1062	
1964 63F		903	US	6 OCT	106.6	89.92	1088	1055	
1964 64A	EXPLORER 22	899	US	10 OCT	104.8	79.70	1079	890	$136.171$162$324 $20$40$41$360
1964 64B		907	US	10 OCT	104.7	79.72	1079	888	
1964 64C		976	US	10 OCT	104.0	79.33	1063	840	
1964 64D		977	US	10 OCT	105.5	80.05	1128	909	
1964 72A		922	US	4 NOV	94.9	82.06	520	509	
1964 72B		925	US	4 NOV	94.7	82.04	509	497	
1964 72C		926	US	4 NOV	93.4	82.03	435	435	
1964 72D		927	US	4 NOV	93.3	81.99	439	436	
1964 73A	MARINER 3	923	US	5 NOV	HELIOCENTRIC ORBIT				
1964 74A	EXPLORER 23	924	US	6 NOV	99.2	51.96	974	465	$136.078$136.861
1964 76A	EXPLORER 24	931	US	21 NOV	115.4	81.44	2368	582	136.709
1964 76B	EXPLORER 25	932	US	21 NOV	116.2	81.37	2494	530	$136.292$136.860
1964 76C		933	US	21 NOV	116.2	81.36	2489	537	
1964 76D		934	US	21 NOV	116.3	81.42	2495	539	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 76E		935	US	21 NOV	116.2	81.34	2488	532	
1964 76F		936	US	21 NOV	115.2	81.33	2353	574	
1964 76G		937	US	21 NOV	116.0	81.37	2460	547	
1964 76H		939	US	21 NOV	114.8	81.34	2324	572	
1964 76I		940	US	21 NOV	116.0	81.36	2476	529	
1964 76J		941	US	21 NOV	116.2	81.34	2475	546	
1964 76K		960	US	21 NOV	116.4	81.47	2442	604	
1964 76L		1411	US	21 NOV	116.3	81.38	2485	548	
1964 77A	MARINER 4	938	US	28 NOV	HELIOCENTRIC ORBIT				
1964 77B		942	US	28 NOV	HELIOCENTRIC ORBIT				
1964 78C	ZOND 2	945	USSR	30 NOV	HELIOCENTRIC ORBIT				
1964 83A		953	US	13 DEC	106.0	89.97	1072	1015	
1964 83B		956	US	13 DEC	106.3	90.00	1086	1027	
1964 83C		959	US	13 DEC	106.3	89.99	1091	1023	135.650$162$324
1964 83D		965	US	13 DEC	106.3	89.99	1090	1025	$150$400
1964 83E		966	US	13 DEC	106.3	89.97	1086	1028	
1964 83F		967	US	13 DEC	106.3	89.98	1090	1023	
1964 83G		1099	US	13 DEC	106.3	89.99	1089	1025	
1964 83H		1528	US	13 DEC	106.3	89.97	1083	1027	
1964 83J		1608	US	13 DEC	106.3	89.99	1090	1023	
1964 86A	EXPLORER 26	963	US	21 DEC	450.7	19.93	25901	284	136.273
1965 LAUNCHES									
1965 03A		973	US	19 JAN	97.6	98.72	830	461	
1965 04A	TIROS 9	978	US	22 JAN	119.2	96.37	2580	708	$136.234$136.198
1965 04B		979	US	22 JAN	119.3	96.41	2593	707	
1965 04C		1312	US	22 JAN	118.0	96.37	2511	676	
1965 04D		1313	US	22 JAN	120.4	96.41	2667	731	
1965 06A	COSMOS 53	983	USSR	30 JAN	93.6	48.70	685	209	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 07A	ORB.SOL.OBS. 2	987	US	3 FEB	96.5	32.86	624	547	136.713
1965 07B		988	US	3 FEB	96.5	32.86	635	547	
1965 08A		1000	US	11 FEB	145.6	32.13	2801	2777	
1965 08B		1001	US	11 FEB	145.4	32.14	2796	2760	
1965 08C		1002	US	11 FEB	145.7	32.13	2806	2779	
1965 09A	PEGASUS 1	1085	US	16 FEB	97.0	31.75	727	497	$136.410;136.890
1965 09B		1088	US	16 FEB	97.1	31.74	734	497	
1965 10B		1087	US	17 FEB	BARYCENTRIC ORBIT				
1965 11A	COSMOS 54	1089	USSR	21 FEB	103.3	56.03	1570	257	
1965 11B	COSMOS 55	1090	USSR	21 FEB	103.2	56.01	1558	260	
1965 11C	COSMOS 56	1091	USSR	21 FEB	102.1	56.04	1454	256	
1965 11D		1092	USSR	21 FEB	105.3	56.03	1749	270	
1965 14A	COSMOS 58	1097	USSR	26 FEB	96.8	65.03	622	587	
1965 14B		1098	USSR	26 FEB	96.9	65.03	700	518	
1965 16A	GREB	1271	US	9 MAR	103.5	70.07	940	910	
1965 16B	GRAVITY GRADIENT II	1244	US	9 MAR	103.5	70.07	941	909	
1965 16C	GRAVITY GRADIENT III	1292	US	9 MAR	103.5	70.04	941	909	136.766
1965 16D	SOLAR RAD.	1291	US	9 MAR	103.5	70.07	941	909	136.800
1965 16E	EGRS III	1208	US	9 MAR	103.5	70.09	942	906	136.840
1965 16F	OSCAR III	1293	US	9 MAR	103.5	70.09	942	907	
1965 16G	SURCAL	1310	US	9 MAR	103.4	70.09	935	909	
1965 16H	DODECAHEDRON	1272	US	9 MAR	103.5	70.09	942	907	
1965 16J	ROCKET BODY	1245	US	9 MAR	103.5	70.10	940	907	
1965 17B	EGRS II	1250	US	11 MAR	97.0	89.98	952	282	
1965 17C		1228	US	11 MAR	96.7	89.98	920	279	
1965 17D		1248	US	11 MAR	96.6	90.00	915	283	
1965 20A	COSMOS 61	1267	USSR	15 MAR	103.0	56.00	1540	261	
1965 20B	COSMOS 62	1268	USSR	15 MAR	103.4	56.04	1571	259	
1965 20C	COSMOS 63	1269	USSR	15 MAR	102.2	56.00	1457	260	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 20D-20EE***			USSR	15 MAR					
1965 21A		1273	US	18 MAR	97.5	98.99	756	528	
1965 21C		1289	US	18 MAR	97.5	98.99	758	526	
1965 21E		1376	US	18 MAR	96.4	98.99	655	520	
1965 21F		1463	US	18 MAR	98.6	99.02	858	530	
1965 23B		1298	US	21 MAR	BARYCENTRIC ORBIT				
1965 27A		1314	US	3 APR	111.5	90.21	1321	1274	
1965 27B	EGRS IV	1315	US	3 APR	111.4	90.20	1324	1266	
1965 27C		1316	US	3 APR	111.5	90.19	1314	1278	
1965 27D		1389	US	3 APR	111.5	90.18	1316	1278	
1965 27E		1399	US	3 APR	111.5	90.22	1323	1272	
1965 28A	EARLY BIRD	1317	US	6 APR	1437.3	.13	36596	35025	
1965 28B	ROCKET BODY	1318	US	6 APR	CURRENT ELEMENTS NOT MAINTAINED				
1965 30A	MOLNIA 1	1324	USSR	23 APR	720.0	65.56	39601	862	
1965 30D		1967	USSR	23 APR	702.6	65.09	38751	854	
1965 31B		1329	US	28 APR	95.1	95.19	549	497	
1965 32A	EXPLORER 27	1328	US	29 APR	107.8	41.16	1311	940	$136.740$162$324 $20$40$41$360
1965 32B		1358	US	29 APR	107.8	41.17	1315	936	
1965 32C		1995	US	29 APR	106.7	41.09	1309	836	
1965 32D		2011	US	29 APR	109.0	41.18	1301	1060	
1965 34A		1359	US	6 MAY	157.0	32.12	3740	2782	
1965 34B		1360	US	6 MAY	309.9	32.21	14798	2784	
1965 34C		1361	US	6 MAY	145.6	32.13	2797	2777	
1965 38A		1377	US	20 MAY	100.0	98.59	964	555	
1965 38B		1378	US	20 MAY	100.0	98.59	969	551	
1965 38C		1379	US	20 MAY	99.9	98.62	957	556	
1965 38D		1380	US	20 MAY	95.5	98.90	597	470	
1965 38E		1461	US	20 MAY	101.0	98.63	1061	549	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 38F		1462	US	20 MAY	98.9	98.57	865	553	
1965 38G		1475	US	20 MAY	100.1	98.58	981	551	
1965 39A	PEGASUS 2	1381	US	25 MAY	97.1	31.76	734	507	$136.410;136.889
1965 39B	ROCKET BODY	1385	US	25 MAY	97.2	31.75	737	510	
1965 42A	EXPLORER 28	1388	US	29 MAY	8558.8	33.86	264247	196	136.125
1965 44A	LUNIK 6	1393	USSR	8 JUN	HELIOCENTRIC ORBIT				
1965 48A		1420	US	24 JUN	106.9	90.00	1142	1028	
1965 48B		1425	US	24 JUN	106.9	89.97	1137	1031	
1965 48C		1428	US	24 JUN	106.6	89.97	1107	1032	
1965 48D		1435	US	24 JUN	106.9	90.00	1139	1033	
1965 50A		1422	US	25 JUN	94.6	107.65	504	494	
1965 51A	TIROS 10	1430	US	2 JUL	100.7	98.61	838	743	$136.232$136.924
1965 51B		1433	US	2 JUL	100.7	98.65	845	742	
1965 51C		1440	US	2 JUL	99.3	98.50	847	608	
1965 51D		1529	US	2 JUL	102.0	98.69	887	824	
1965 52A	COSMOS 70	1431	USSR	2 JUL	95.7	48.74	881	216	
1965 52B		1432	USSR	2 JUL	93.0	48.73	608	218	
1965 53A	COSMOS 71	1441	USSR	16 JUL	95.2	56.07	544	516	
1965 53B	COSMOS 72	1442	USSR	16 JUL	95.9	56.07	579	545	
1965 53C	COSMOS 73	1443	USSR	16 JUL	95.6	56.08	549	543	
1965 53D	COSMOS 74	1444	USSR	16 JUL	96.2	56.05	609	545	
1965 53E	COSMOS 75	1445	USSR	16 JUL	96.5	56.05	637	546	
1965 53F		1448	USSR	16 JUL	96.6	56.09	640	549	
1965 53G		1449	USSR	16 JUL	95.0	56.05	533	498	
1965 53H		1473	USSR	16 JUL	96.6	56.04	651	544	
1965 55A		1447	US	17 JUL	94.4	70.17	512	466	
1965 55B		1452	US	17 JUL	92.9	70.09	425	410	
1965 55C		1455	US	17 JUL	93.5	70.15	460	433	
1965 55D		1744	US	17 JUL	91.1	70.13	304	304	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 56A	ZOND 3	1454	USSR	18 JUL	HELIOCENTRIC ORBIT				
1965 58A		1458	US	20 JUL	6695.0	34.81	116970	105610	
1965 58B		1459	US	20 JUL	6700.3	34.45	122195	100511	
1965 58C		1460	US	20 JUL	2595.4	36.88	111793	566	136.768
1965 60A	PEGASUS 3	1467	US	30 JUL	95.1	28.87	535	510	$136.410;136.590
1965 60B		1468	US	30 JUL	95.2	28.87	534	518	
1965 62B		1472	US	3 AUG	94.7	107.36	505	501	
1965 63A	EGRS 5	1506	US	10 AUG	122.2	69.24	2427	1135	136.840
1965 63B		1502	US	10 AUG	122.2	69.25	2426	1137	
1965 64A	CENTAUR 6	1503	US	11 AUG	HELIOCENTRIC ORBIT				
1965 65A		1504	US	13 AUG	108.1	90.03	1193	1088	
1965 65B		1508	US	13 AUG	107.9	90.01	1159	1102	
1965 65C		1510	US	13 AUG	108.1	90.02	1196	1082	
1965 65D		1511	US	13 AUG	108.1	90.00	1192	1089	
1965 65E		1512	US	13 AUG	108.1	90.02	1195	1087	
1965 65F		1514	US	13 AUG	108.1	90.02	1192	1091	
1965 65G		1515	US	13 AUG	108.1	90.00	1191	1085	
1965 65H		1520	US	13 AUG	108.1	90.01	1196	1087	
1965 65J		1521	US	13 AUG	108.1	90.02	1202	1079	
1965 65K		1522	US	13 AUG	108.1	90.02	1196	1089	
1965 65L		1577	US	13 AUG	108.1	90.06	1199	1084	
1965 70A	COSMOS 80	1570	USSR	3 SEP	115.0	56.08	1554	1354	
1965 70B	COSMOS 81	1571	USSR	3 SEP	115.3	56.09	1552	1389	
1965 70C	COSMOS 82	1572	USSR	3 SEP	115.7	56.09	1560	1412	
1965 70D	COSMOS 83	1573	USSR	3 SEP	116.1	56.10	1567	1440	
1965 70E	COSMOS 84	1574	USSR	3 SEP	116.4	56.08	1577	1464	
1965 70F		1575	USSR	3 SEP	114.6	56.15	1516	1357	
1965 72A		1580	US	10 SEP	101.9	98.64	1050	654	
1965 72B		1581	US	10 SEP	101.4	98.86	988	662	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 72C		1582	US	10 SEP	101.2	98.78	1008	625	
1965 72D		1583	US	10 SEP	101.9	98.63	1053	651	
1965 72E		1931	US	10 SEP	103.3	98.63	1186	649	
1965 72F		1932	US	10 SEP	100.7	98.64	939	647	
1965 73A	COSMOS 86	1584	USSR	18 SEP	115.1	56.09	1637	1279	
1965 73B	COSMOS 87	1585	USSR	18 SEP	115.5	56.05	1650	1303	
1965 73C	COSMOS 88	1586	USSR	18 SEP	115.8	56.09	1663	1324	
1965 73D	COSMOS 89	1587	USSR	18 SEP	116.2	56.08	1681	1344	
1965 73E	COSMOS 90	1588	USSR	18 SEP	116.7	56.08	1689	1373	
1965 73F		1589	USSR	18 SEP	116.8	56.11	1695	1380	
1965 73G		1590	USSR	18 SEP	116.5	56.08	1683	1365	
1965 73H		1591	USSR	18 SEP	116.7	56.04	1692	1373	
1965 73J		1617	USSR	18 SEP	117.5	56.13	1762	1376	
1965 73K		1618	USSR	18 SEP	117.7	56.17	1768	1388	
1965 78A		1613	US	5 OCT	125.7	144.28	3451	412	
1965 78B		1616	US	5 OCT	125.6	144.28	3445	413	
1965 80A	2nd MOLNIYA I	1621	USSR	13 OCT	716.6	64.93	39735	560	
1965 81A	OGO 2	1620	US	14 OCT	104.3	87.36	1509	421	$136.200$400.250 $400.850
1965 81B		1625	US	14 OCT	104.3	87.36	1505	419	
1965 82A	TITAN 3 C-4	1624	US	15 OCT	100.0	32.31	783	728	
1965 82B-82KB****			US	15 OCT					
1965 84E		2098	USSR	19 OCT	93.9	48.42	516	411	
1965 89A	EXPLORER 29	1726	US	6 NOV	120.3	59.38	2273	1119	$136.830$162 $324$972
1965 89B		1729	US	6 NOV	120.3	59.41	2274	1116	
1965 91A	VENERA 2	1730	USSR	12 NOV	HELIOCENTRIC ORBIT				
1965 92D		1736	USSR	16 NOV	HELIOCENTRIC ORBIT				
1965 93A	EXPLORER 30	1738	US	19 NOV	100.8	59.71	900	693	136.530
1965 93B		1739	US	19 NOV	100.8	59.73	873	717	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 93C		2013	US	19 NOV	100.3	59.69	839	707	
1965 93D		2088	US	19 NOV	101.4	59.74	921	729	
1965 95A	COSMOS 91	1777	USSR	26 NOV	106.1	48.43	1871	215	
1965 95B		1779	USSR	26 NOV	105.5	48.49	1794	213	
1965 96A	A-1	1778	FRENCH	26 NOV	108.7	34.25	1799	529	
1965 96B		1805	FRENCH	26 NOV	108.8	34.25	1810	526	
1965 96C		1938	FRENCH	26 NOV	105.7	34.25	1568	482	
1965 96D		1996	FRENCH	26 NOV	108.6	34.25	1793	525	
1965 98A	ALOUETTE 2	1804	CANADA	29 NOV	121.4	79.82	2986	505	$136.080 $136.590 136.980
1965 98B	EXPLORER 31	1806	US	29 NOV	121.3	79.81	2975	504	136.380
1965 98C		1807	US	29 NOV	121.3	79.83	2978	506	
1965 98D		1808	US	29 NOV	121.3	79.82	2978	505	
1965 98E		1944	US	29 NOV	121.4	79.83	2988	504	
1965 98F		1948	US	29 NOV	121.4	79.90	2982	507	
1965 98G		1951	US	29 NOV	121.3	79.74	2974	503	
1965 98H		2092	US	29 NOV	121.4	79.88	2984	504	
1965 101A	FR-1	1814	FRENCH	6 DEC	99.9	75.88	762	747	$136.350 136.800
1965 101B		1815	US	6 DEC	100.0	75.87	768	753	
1965 101C		1934	US	6 DEC	99.9	76.47	783	731	
1965 101D		1935	US	6 DEC	99.6	75.26	782	694	
1965 105A	PIONEER 6	1841	US	16 DEC	HELIOCENTRIC ORBIT				
1965 105B		1842	US	16 DEC	99.9	30.17	1234	271	
1965 106A	COSMOS 100	1843	USSR	17 DEC	97.6	65.01	657	630	
1965 106B		1844	USSR	17 DEC	97.7	65.00	733	568	
1965 107A	COSMOS 101	1846	USSR	21 DEC	91.6	48.76	448	247	
1965 107B		1847	USSR	21 DEC	89.3	48.76	224	204	
1965 108A	TITAN 3 C-8	1863	US	21 DEC	589.5	26.36	33616	199	
1965 108B	LES 4	1870	US	21 DEC	578.0	26.50	33096	216	
1965 108C	OSCAR IV	1902	US	21 DEC	579.4	26.73	32977	161	
1965 108D	LES 3	1941	US	21 DEC	566.9	26.47	27120	200	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 109A		1864	US	22 DEC	105.0	89.10	1082	913	
1965 109B		1865	US	22 DEC	105.0	89.11	1080	914	
1965 109C		2086	US	22 DEC	103.8	89.17	982	893	
1965 112A	COSMOS 103	1868	USSR	28 DEC	97.0	56.04	630	599	
1965 112B-112Q*****			USSR	28 DEC					
1966 LAUNCHES									
1966 04A	COSMOS 106	1949	USSR	25 JAN	92.5	48.38	507	280	
1966 04B		1950	USSR	25 JAN	92.0	48.40	465	273	
1966 05A		1952	US	28 JAN	105.9	89.71	1216	862	
1966 05B		1953	US	28 JAN	105.9	89.71	1213	864	
1966 05C		2140	US	28 JAN	107.9	89.90	1393	868	
1966 05D		2141	US	28 JAN	104.5	89.75	1095	846	
1966 06D		2001	USSR	31 JAN	BARYCENTRIC ORBIT				
1966 08A	ESSA-1	1982	US	3 FEB	100.3	97.90	844	703	$136.230$136.920
1966 08B		1983	US	3 FEB	100.6	97.89	869	703	
1966 08C		2085	US	3 FEB	99.2	97.76	751	691	
1966 08D		2118	US	3 FEB	101.4	98.05	955	693	
1966 09A		1997	US	9 FEB	94.8	82.08	511	507	
1966 09B		2003	US	9 FEB	94.6	82.08	503	496	
1966 09C		2004	US	9 FEB	94.6	82.10	500	499	
1966 11A	COSMOS 108	2002	USSR	11 FEB	94.7	48.86	780	219	
1966 11B		2007	USSR	11 FEB	93.4	48.84	650	215	
1966 13A	D-1A	2016	FRENCH	17 FEB	118.7	34.07	2740	501	
1966 13B		2017	FRENCH	17 FEB	118.7	34.08	2747	498	
1966 13C		2018	FRENCH	17 FEB	119.2	34.01	2715	571	
1966 13D		2020	FRENCH	17 FEB	118.4	34.27	2725	488	
1966 13E		2021	FRENCH	17 FEB	118.6	34.06	2697	540	
1966 13F		2023	FRENCH	17 FEB	117.8	34.03	2673	488	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1966 LAUNCHES (CONT'D)									
1966 15B		2071	USSR	22 FEB	91.2	51.82	670	174	
1966 16A	ESSA 2	2091	US	28 FEB	113.5	100.98	1418	1356	$136.770$137.50C
1966 16B		2096	US	28 FEB	113.5	100.98	1420	1356	
1966 19A	GEMINI AGENA TARGET VEHICLE	2104	US	16 MAR	92.7	28.87	406	399	
1966 20C		2115	US	16 MAR	89.5	28.85	226	226	
1966 21B		2108	USSR	17 MAR	91.1	72.08	438	214	
1966 24A		2119	US	26 MAR	105.3	89.73	1128	892	
1966 24B		2120	US	26 MAR	105.3	89.74	1126	895	
1966 25A	OV1-4	2121	US	30 MAR	104.1	144.53	1013	887	
1966 25B	OV1-5	2122	US	30 MAR	105.6	144.67	1059	987	
1966 25C		2123	US	30 MAR	105.6	144.67	1060	985	
1966 25D		2124	US	30 MAR	104.1	144.55	1014	884	
1966 26A		2125	US	31 MAR	100.5	98.63	936	632	
1966 26B		2129	US	31 MAR	100.5	98.63	937	632	
1966 27A	LUNA 10	2126	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27D		2130	USSR	31 MAR	HELIOCENTRIC ORBIT				
1966 27E		2131	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27F		2132	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 28B		2134	USSR	6 APR	89.2	72.87	246	199	
1966 29A		2136	US	7 APR	89.5	75.07	301	190	
1966 30A	SURVEYOR MODULE	2139	US	8 APR	89.6	30.77	319	175	
1966 30B		2143	US	8 APR	89.6	30.74	277	165	
1966 31A	OAO 1	2142	US	8 APR	100.9	35.02	804	792	136.440$136.260 $400.550
1966 31B		2144	US	8 APR	100.8	35.03	805	787	

DECAYED OBJECTS

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	DECAY
PLEASE ADD THE FOLLOWING TO THE DECAYED OBJECTS LISTS:					
1965 11E		1094	USSR	21 FEB	8 APR 66
1966 27B		2127	USSR	31 MAR	4 APR 66
1966 27C		2128	USSR	31 MAR	2 APR 66
1966 28A	COSMOS 114	2133	USSR	6 APR	14 APR 66
1966 28C		2135	USSR	6 APR	10 APR 66
1966 28D		2137	USSR	6 APR	10 APR 66
1966 28E		2138	USSR	6 APR	9 APR 66

FOLLOWING ARE THE INITAL ELEMENTS OF OBJECTS WHOSE LAUNCH AND ORBIT DECAY OCCURED WITHIN THIS REPORTING PERIOD:

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	PERIOD MINTUES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1966 27B		2127	USSR	88.7	51.70	225	200	
1966 27C		2128	USSR	88.3	51.82	199	186	
1966 28A	COSMOS 114	2133	USSR	90.0	72.90	340	205	
1966 28C		2128	USSR	88.3	51.82	199	186	
1966 28D		2137	USSR	89.8	73.00	337	200	
1966 28E		2138	USSR	89.9	72.90	342	201	

* APHELION PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC

** TWO HUNDRED AND TEN METAL OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 AND 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

*** ONE HUNDRED AND TWENTY TWO OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1965 20A, 1965 20B AND 1965 20C. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

**** TWO HUNDRED AND FORTY ONE OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 82A. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

***** FOURTEEN OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 112A.

$ TRANSMITTING ON COMMAND ONLY.

& TRANSMITTING WHEN IN SUNLIGHT ONLY.

\# NO CATALOGUE NUMBER ASSIGNED.

X-512-66-51

GSFC OPERATIONS CONTROL CENTER

SATELLITE SITUATION REPORT

VOL. 6, NO. 7

APRIL 15, 1966



GODDARD SPACE FLIGHT CENTER

GREENBELT, MD.

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GSFC OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 6, NO. 7 APRIL 15, 1966

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED BY THE GODDARD SPACE FLIGHT CENTER, NORAD, AND THE SMITHSONIAN ASTROPHYSICAL OBSERVATORY AS OF 1200Z ON APRIL 15, 1966.

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1958 LAUNCHES									
ALPHA 1	EXPLORER 1	004	US	1 FEB	103.7	33.18	1521	338	
BETA 1	ROCKET BODY	016	US	17 MAR	138.4	34.26	4316	651	
BETA 2	VANGUARD 1	005	US	17 MAR	134.0	34.24	3938	653	
BETA 3		1576	US	17 MAR	132.7	34.24	3826	645	
1959 LAUNCHES									
ALPHA 1	VANGUARD 2	011	US	17 FEB	125.4	32.85	3285	555	
ALPHA 2	ROCKET BODY	012	US	17 FEB	129.7	32.90	3655	557	
ETA 1	VANGUARD 3	020	US	18 SEP	129.8	33.33	3715	511	
MU 1	LUNIK 1	112	USSR	2 JAN	HELIOCENTRIC ORBIT				
NU 1	PIONEER 4	113	US	3 MAR	HELIOCENTRIC ORBIT				
IOTA 1	EXPLORER 7	022	US	13 OCT	101.1	50.30	1074	550	
IOTA 2	ROCKET BODY	023	US	13 OCT	100.9	50.31	1051	550	
1960 LAUNCHES									
ALPHA 1	PIONEER 5	027	US	11 MAR	HELIOCENTRIC ORBIT				
BETA 1	ROCKET BODY	028	US	1 APR	99.1	48.38	742	689	
BETA 2	TIROS 1	029	US	1 APR	99.2	48.38	744	695	
BETA 3	NONE	101	US	1 APR	97.9	48.49	696	615	
BETA 4	NONE	115	US	1 APR	99.9	48.16	803	701	
GAMMA 2	TRANSIT 1B	031	US	13 APR	93.4	51.21	538	342	
GAMMA 4	NONE	099	US	13 APR	96.7	51.25	722	478	
ZETA 1	MIDAS 2	043	US	24 MAY	94.3	33.04	489	472	
ETA 1	TRANSIT 2A	045	US	22 JUN	101.6	66.70	1059	612	
ETA 2	GREB	046	US	22 JUN	101.6	66.70	1056	612	
ETA 3	ROCKET BODY	047	US	22 JUN	101.4	66.70	1043	607	
ETA 4		840	US	22 JUN	101.5	66.69	1051	612	
ETA 5		841	US	22 JUN	101.5	66.69	1048	612	

510-17(2/66)

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1960 LAUNCHES (CONT'D)									
IOTA 1	ECHO I	049	US	12 AUG	112.9	47.31	1791	922	
IOTA 2	ROCKET BODY	050	US	12 AUG	118.1	47.22	1684	1503	
IOTA 3	METAL OBJECT	051	US	12 AUG	118.2	47.25	1689	1514	
IOTA 4	METAL OBJECT	052	US	12 AUG	CURRENT ELEMENTS NOT MAINTAINED				
IOTA 5	METAL OBJECT	053	US	12 AUG	118.4	47.34	1682	1538	
NU 1	COURIER 1B	058	US	4 OCT	107.0	28.32	1213	962	
NU 2	ROCKET BODY	059	US	4 OCT	106.6	28.24	1206	925	
XI 1	EXPLORER 8	060	US	3 NOV	112.2	49.95	2239	417	
XI 2	ROCKET BODY	062	US	3 NOV	111.7	49.96	2190	418	
XI 3	NONE	069	US	3 NOV	108.4	49.39	1905	400	
XI 4	NONE	105	US	3 NOV	110.0	50.49	2032	418	
PI 1	TIROS 2	063	US	23 NOV	98.2	48.51	728	619	
PI 2	ROCKET BODY	064	US	23 NOV	98.1	48.52	717	616	
PI 3	NONE	074	US	23 NOV	98.1	48.52	718	620	
PI 4	NONE	075	US	23 NOV	98.3	48.52	732	620	
1961 LAUNCHES									
ALPHA 1	SAMOS 2	070	US	31 JAN	94.7	97.38	541	466	
ALPHA 2	METAL OBJECT	079	US	31 JAN	94.6	97.38	534	462	
GAMMA 1	VENUS PROBE	080	USSR	12 FEB	HELIOCENTRIC ORBIT				
DELTA 2	ROCKET BODY	082	US	16 FEB	118.5	38.85	2592	634	
DELTA 3	NONE	085	US	16 FEB	CURRENT ELEMENTS NOT MAINTAINED				
KAPPA 1	EXPLORER 10	098	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	107	US	27 APR	107.9	28.78	1777	480	
OMICRON 1	TRANSIT 4A	116	US	29 JUN	103.8	66.81	999	881	$54$324$150$400
OMICRON 2	INJUN-SR-3	117	US	29 JUN	103.8	66.84	1003	877	
OMICRON 3-212**	METAL OBJECTS		US	29 JUN					
RHO 1	TIROS 3	162	US	12 JUL	100.4	47.90	818	737	
RHO 2	ROCKET BODY	165	US	12 JUL	100.3	47.90	804	743	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1961 LAUNCHES (CONT'D)									
RHO 3	METAL OBJECT	166	US	12 JUL	98.8	47.93	791	613	
RHO 4	METAL OBJECT	167	US	12 JUL	102.0	47.86	931	774	
SIGMA 1	MIDAS 3	163	US	12 JUL	161.5	91.26	3547	3344	
SIGMA 3	METAL OBJECT	188	US	12 JUL	161.1	91.21	3542	3321	
SIGMA 4	METAL OBJECT	196	US	12 JUL	161.9	91.22	3573	3351	
UPSILON 1	EXPLORER 12	170	US	16 AUG	CURRENT ELEMENTS NOT MAINTAINED				
A DELTA 1	MIDAS 4	192	US	21 OCT	166.0	95.85	3751	3502	
A DELTA 3	METAL OBJECT	194	US	21 OCT	165.6	95.85	3740	3481	
A DELTA 4	METAL OBJECT	195	US	21 OCT	166.4	95.86	3804	3483	
A DELTA 5		2009	US	21 OCT	165.7	95.82	3731	3502	
A ETA 1	TRANSIT 4B	202	US	15 NOV	105.8	32.42	1105	954	
A ETA 2	TRAAC	205	US	15 NOV	105.8	32.42	1104	957	
A ETA 3	ROCKET BODY	204	US	15 NOV	105.6	32.43	1098	948	
1962 LAUNCHES									
ALPHA 1	RANGER 3	221	US	26 JAN	HELIOCENTRIC ORBIT				
ALPHA 2	ROCKET BODY	222	US	26 JAN	HELIOCENTRIC ORBIT				
BETA 1	TIROS 4	226	US	8 FEB	100.4	48.31	839	712	
BETA 2	ROCKET BODY	227	US	8 FEB	101.4	48.13	942	702	
BETA 3	METAL OBJECT	228	US	8 FEB	99.5	48.42	762	703	
BETA 4	METAL OBJECT	229	US	8 FEB	100.3	48.29	837	706	
ZETA 1	ORB.SOL.OBS. 1	255	US	7 MAR	96.0	32.83	579	554	
ZETA 2	ROCKET BODY	257	US	7 MAR	96.0	32.83	581	545	
KAPPA 1		271	US	9 APR	153.0	86.64	3411	2786	
KAPPA 3		273	US	9 APR	152.6	86.65	3371	2795	
KAPPA 4		274	US	9 APR	153.3	86.65	3426	2800	
MU 2	ROCKET BODY	282	US	23 APR	HELIOCENTRIC ORBIT				
OMICRON 1	ARIEL	285	JS/UK	26 APR	100.3	53.84	1161	386	136.405
OMICRON 2	ROCKET BODY	288	US	26 APR	100.1	53.86	1144	386	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
A ALPHA 1	TIROS 5	309	US	19 JUN	100.5	58.12	973	590	
A ALPHA 2	ROCKET BODY	311	US	19 JUN	100.4	58.12	963	589	
A ALPHA 3	METAL OBJECT	312	US	19 JUN	101.7	58.21	1081	601	
A ALPHA 4	METAL OBJECT	313	US	19 JUN	99.1	58.00	855	574	
A EPSILON 1	TELSTAR 1	340	US	10 JUL	157.8	44.81	5645	943	
A EPSILON 2	ROCKET BODY	341	US	10 JUL	157.6	44.79	5634	940	
A OMICRON 1		369	US	23 AUG	99.5	98.69	856	618	
A OMICRON 2		370	US	23 AUG	98.2	98.60	748	600	
A OMICRON 3		378	US	23 AUG	100.8	98.77	973	620	
A OMICRON 4		388	US	23 AUG	99.5	98.69	854	617	
A RHO 1	MARINER 2	374	US	27 AUG	HELIOCENTRIC ORBIT				
A RHO 2	ROCKET BODY	375	US	27 AUG	HELIOCENTRIC ORBIT				
A PSI 1	TIROS 6	397	US	18 SEP	98.7	58.30	710	687	
A PSI 2	ROCKET BODY	398	US	18 SEP	98.6	58.30	706	684	
A PSI 3	METAL OBJECT	399	US	18 SEP	99.4	58.45	775	683	
A PSI 4	METAL OBJECT	400	US	18 SEP	98.0	58.21	693	635	
B ALPHA 1	ALOUETTE	424	CANADA	29 SEP	105.5	80.48	1034	1002	$136.591$136.078
B ALPHA 2	ROCKET BODY	426	US	29 SEP	105.4	80.47	1028	1003	
B ALPHA 3	METAL OBJECT	510	US	29 SEP	105.4	80.51	1024	1001	
B ALPHA 4	METAL OBJECT	511	US	29 SEP	105.5	80.43	1051	985	
B GAMMA 1	EXPLORER 14	432	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B GAMMA 2#	ROCKET BODY	NNA	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B ETA 1	RANGER 5	439	US	18 OCT	HELIOCENTRIC ORBIT				
B ETA 2	ROCKET BODY	440	US	18 OCT	HELIOCENTRIC ORBIT				
B KAPPA 1		444	US	26 OCT	119.8	71.37	3140	199	
B LAMBDA 1	EXPLORER 15	445	US	27 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B LAMBDA 2#	ROCKET BODY	NNA	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	446	US	31 OCT	107.9	50.13	1183	1076	$162$324
B MU 2	ROCKET BODY	447	US	31 OCT	107.6	50.21	1161	1072	
B NU 3		450	USSR	1 NOV	HELIOCENTRIC ORBIT				

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
B TAU 1		502	US	13 DEC	101.6	70.30	1438	225	
B TAU 2	INJUN 3	504	US	13 DEC	108.9	70.33	2108	236	
B TAU 5		513	US	13 DEC	101.4	70.27	1418	227	
B TAU 6		520	US	13 DEC	107.5	70.30	1979	238	
B UPSILON 1	RELAY 1	503	US	13 DEC	185.1	47.48	7433	1325	$136.140;136.621
B UPSILON 2	ROCKET BODY	515	US	13 DEC	184.8	47.50	7416	1325	
B CHI 1	EXPLORER 16	506	US	16 DEC	104.4	52.04	1163	766	
B PSI 1	TRANSIT 5A	509	US	19 DEC	99.1	90.65	734	696	
B PSI 2		514	US	19 DEC	97.6	90.76	722	565	
B PSI 3		519	US	19 DEC	99.0	90.65	747	682	
B PSI 4		523	US	19 DEC	100.2	90.47	836	700	
1963 LAUNCHES									
1963 03A		527	US	16 JAN	94.3	81.89	515	460	
1963 04A	SYNCOM 1	553	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 04B	ROCKET BODY	532	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 05A		533	US	19 FEB	97.6	100.48	794	500	
1963 05B		534	US	19 FEB	97.7	100.45	794	502	
1963 05C		535	US	19 FEB	96.7	100.49	737	468	
1963 05D		536	US	19 FEB	98.3	100.49	831	524	
1963 08B		566	USSR	2 APR	BARYCENTRIC ORBIT				
1963 09A	EXPLORER 17	564	US	3 APR	92.5	57.60	555	236	
1963 13A	TELSTAR 2	573	US	7 MAY	225.3	42.76	10797	980	
1963 13B	ROCKET BODY	575	US	7 MAY	225.1	42.78	10779	977	
1963 14A		574	US	9 MAY	166.4	87.55	3681	3610	
1963 14B		579	US	9 MAY	166.4	86.64	4202	3088	
1963 14C		608	US	9 MAY	166.4	87.34	3696	3595	
1963 14D		589	US	9 MAY	CURRENT ELEMENTS NOT MAINTAINED				
1963 14E		602	US	9 MAY	166.1	87.34	3654	3609	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 14F		628	US	9 MAY	166.8	87.32	3662	3660	
1963 14G		629	US	9 MAY	166.4	87.34	3712	3578	
1963 14H		702	US	9 MAY	166.4	87.33	3681	3609	
1963 22A		594	US	16 JUN	99.7	90.01	756	734	$150$400
1963 22B		603	US	16 JUN	99.7	90.01	759	731	
1963 22C		610	US	16 JUN	101.2	90.21	891	742	
1963 22D		611	US	16 JUN	98.0	89.80	768	568	
1963 24A	TIROS 7	604	US	19 JUN	97.4	58.22	640	631	$136.233$136.924
1963 24B	ROCKET BODY	605	US	19 JUN	97.3	58.22	635	621	
1963 24C	METAL OBJECT	606	US	19 JUN	97.9	58.38	674	639	
1963 24D	METAL OBJECT	607	US	19 JUN	96.9	58.10	634	582	
1963 25B		614	US	27 JUN	132.0	82.13	4076	342	
1963 26A	RESEARCH SATELLITE FOR GEOPHYSICS	612	US	28 JUN	102.0	49.72	1289	414	
1963 27A		613	US	29 JUN	94.6	82.33	521	478	
1963 30A		622	US	18 JUL	167.8	88.44	3737	3668	
1963 30B		635	US	18 JUL	167.8	88.44	3737	3668	
1963 30C		630	US	18 JUL	167.5	88.44	3724	3652	
1963 30D		624	US	18 JUL	167.3	87.89	4692	2669	
1963 30E		631	US	18 JUL	168.3	88.44	3787	3652	
1963 31A	SYNCOM 2	634	US	26 JUL	1434.9	31.23	35803	35722	$136.467$136.980 $1814.069 $1815.794 $1820.177
1963 31B	ROCKET BODY	625	US	26 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1963 38A		669	US	28 SEP	107.1	89.90	1110	1077	
1963 38B		670	US	28 SEP	107.4	89.90	1138	1074	
1963 38C		671	US	28 SEP	107.3	89.90	1135	1075	$136.653$162$32
1963 38D		672	US	28 SEP	107.3	89.95	1130	1078	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 38E		745	US	28 SEP	107.1	89.96	1110	1075	
1963 38F		2097	US	28 SEP	107.3	89.95	1124	1084	
1963 39A		674	US	17 OCT	6490.7	37.80	117349	100421	
1963 39B		675	US	17 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1963 39C		692	US	17 OCT	6509.4	36.57	115176	103035	
1963 43A	POLYOT 1	683	USSR	1 NOV	102.2	58.91	1382	343	
1963 43B		684	USSR	1 NOV	97.2	58.59	929	313	
1963 43D		686	USSR	1 NOV	96.9	59.82	903	317	
1963 46A	EXPLORER 18	693	US	27 NOV	CURRENT ELEMENTS NOT MAINTAINED				
1963 47A	CENTAUR 2	694	US	27 NOV	107.8	30.36	1768	478	
1963 47B		696	US	27 NOV	107.2	30.05	1614	578	
1963 47C		697	US	27 NOV	107.4	30.06	1639	572	
1963 47D		698	US	27 NOV	108.0	29.91	1653	614	
1963 47E		699	US	27 NOV	108.6	30.44	1744	575	
1963 47F		700	US	27 NOV	108.6	30.46	1751	573	
1963 47G		701	US	27 NOV	107.8	30.00	1644	605	
1963 47H		739	US	27 NOV	105.9	30.41	1582	487	
1963 47J		1994	US	27 NOV	108.8	30.56	1763	574	
1963 49A		703	US	5 DEC	106.8	89.95	1089	1071	
1963 49B		704	US	5 DEC	107.1	89.95	1124	1066	$150$400
1963 49C		705	US	5 DEC	107.1	89.94	1124	1064	
1963 49D		706	US	5 DEC	107.0	89.93	1117	1066	
1963 49E		715	US	5 DEC	107.1	89.95	1122	1064	
1963 49F		753	US	5 DEC	107.1	89.97	1121	1068	
1963 53A	EXPLORER 19	714	US	19 DEC	115.0	78.66	2257	657	
1963 53B		721	US	19 DEC	115.8	78.60	2394	596	
1963 53C		722	US	19 DEC	115.8	78.71	2368	618	
1963 53D		723	US	19 DEC	115.8	78.53	2393	596	
1963 53E		724	US	19 DEC	115.9	78.59	2370	624	
1963 53F		725	US	19 DEC	115.7	78.63	2376	604	
1963 53G		726	US	19 DEC	115.7	78.56	2356	625	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 53H		732	US	19 DEC	115.7	78.62	2390	589	
1963 54A	TIROS 8	716	US	21 DEC	99.4	58.52	753	703	$136.231$136.924
1963 54B		717	US	21 DEC	99.3	58.55	743	706	
1963 54C		720	US	21 DEC	101.1	58.49	914	704	
1963 54D		736	US	21 DEC	97.7	58.54	700	594	
1964 LAUNCHES									
1964 01A		727	US	11 JAN	103.4	69.93	938	907	
1964 01B	GGSE	728	US	11 JAN	103.4	69.91	935	910	
1964 01C	EGRS 1	729	US	11 JAN	103.4	69.91	928	916	136.805
1964 01D	SOLAR RAD.	730	US	11 JAN	103.5	69.92	933	912	136.886
1964 01E		731	US	11 JAN	103.5	69.91	932	914	
1964 02A		733	US	19 JAN	101.3	99.15	851	790	
1964 02B		734	US	19 JAN	101.3	99.10	835	804	
1964 02C		735	US	19 JAN	101.3	99.10	832	811	
1964 03A	RELAY 2	737	US	21 JAN	194.7	46.33	7423	2076	136.620$136.142
1964 03B		738	US	21 JAN	194.8	46.33	7434	2071	
1964 04A	ECHO 2	740	US	25 JAN	108.0	81.53	1166	1198	136.019;136.170
1964 04B		741	US	25 JAN	108.9	81.50	1308	1048	
1964 04C		742	US	25 JAN	108.8	81.49	1308	1041	
1964 04D		743	US	25 JAN	108.8	81.53	1308	1039	
1964 05A	SATURN 5	744	US	29 JAN	89.7	31.44	285	215	
1964 06A	ELEKTRON 1	746	USSR	30 JAN	169.2	60.89	7108	405	
1964 06B	ELEKTRON 2	748	USSR	30 JAN	1356.3	58.43	66434	1986	
1964 06C		750	USSR	30 JAN	167.8	60.92	6993	406	
1964 06D		751	USSR	30 JAN	1384.1	58.49	67478	2046	
1964 11A		759	US	28 FEB	94.5	82.09	504	488	
1964 15A	ARIEL 2	771	US/UK	27 MAR	98.9	51.64	1127	286	136.557
1964 15B		775	US	27 MAR	97.9	51.69	1025	284	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLINATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MG/S)
1964 LAUNCHES (CONT'D)									
1964 15C		847	US	27 MAR	102.7	51.38	1403	367	
1964 16D		785	USSR	2 APR	HELIOCENTRIC ORBIT				
1964 19B	POLYOT 2	784	USSR	12 APR	90.2	58.03	310	257	
1964 26A		801	US	4 JUN	103.1	90.52	951	860	$150$400
1964 26B		805	US	4 JUN	103.8	90.21	987	896	
1964 26C		806	US	4 JUN	102.3	90.88	946	791	
1964 26D		809	US	4 JUN	103.1	90.52	954	856	
1964 31A		812	US	18 JUN	101.6	99.74	839	830	
1964 31B		813	US	18 JUN	101.6	99.76	840	831	
1964 31C		815	US	18 JUN	101.6	99.81	844	824	
1964 35A		824	US	2 JUL	94.8	82.09	524	493	
1964 38A	ELECKTRON 3	829	USSR	10 JUL	168.1	60.93	7016	404	
1964 38B	ELECKTRON 4	830	USSR	10 JUL	1313.8	59.93	65414	1302	
1964 38C		831	USSR	10 JUL	168.3	60.89	7044	392	
1964 38D		832	USSR	10 JUL	1341.2	58.99	66509	1308	
1964 40A		836	US	17 JUL	6026.0	38.68	103902	102729	
1964 40B		837	US	17 JUL	6003.7	40.56	115626	90461	
1964 40C		838	US	17 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1964 41B		843	US	28 JUL	BARYCENTRIC ORBIT				
1964 45B		851	US	14 AUG	126.0	95.67	3619	273	
1964 47A	SYNCOM 3	858	US	19 AUG	1435.3	.72	35783	35759	$136.470$136.980 $1820.177 $1815.794 $1814.931
1964 47B		862	US	19 AUG	CURRENT ELEMENTS NOT MAINTAINED				
1964 49D	COSMOS 41	869	USSR	22 AUG	714.7	67.18	39253	944	
1964 49E		898	USSR	22 AUG	717.7	67.78	39383	966	
1964 51A	EXPLORER 20	870	US	25 AUG	103.9	79.91	1023	867	$136.326$136.350 $136.680
1964 51B		871	US	25 AUG	103.8	79.91	1014	870	
1964 51C		873	US	25 AUG	103.1	79.82	966	849	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 51D		874	US	25 AUG	103.2	79.82	991	822	
1964 51E		875	US	25 AUG	103.2	79.80	1023	804	
1964 52A	NIMBUS 1	872	US	28 AUG	98.2	98.72	925	426	
1964 52B		878	US	28 AUG	98.3	98.72	925	428	
1964 53A	COSMOS 44	876	USSR	28 AUG	99.5	65.10	863	609	
1964 53B		877	USSR	28 AUG	99.6	65.09	808	671	
1965 54A	OGO 1	879	US	5 SEP	3841.9	40.72	144824	4930	$136.200$400.250 $400.850
1964 60A	EXPLORER 21	889	US	4 OCT	CURRENTS ELEMENTS NOT MAINTAINED				
1964 63A		893	US	6 OCT	106.3	89.91	1080	1035	
1964 63B		897	US	6 OCT	106.6	89.90	1077	1061	
1964 63C		900	US	6 OCT	106.6	89.91	1082	1055	
1964 63D		901	US	6 OCT	106.6	89.90	1076	1067	
1964 63E		902	US	6 OCT	106.6	89.90	1079	1062	
1964 63F		903	US	6 OCT	106.6	89.92	1088	1055	
1964 64A	EXPLORER 22	899	US	10 OCT	104.8	79.70	1079	890	$136.171$162$324 $20$40$41$360
1964 64B		907	US	10 OCT	104.7	79.72	1079	888	
1964 64C		976	US	10 OCT	104.0	79.33	1063	840	
1964 64D		977	US	10 OCT	105.5	80.05	1128	909	
1964 72A		922	US	4 NOV	94.9	82.06	520	509	
1964 72B		925	US	4 NOV	94.7	82.04	509	497	
1964 72C		926	US	4 NOV	93.4	82.03	435	435	
1964 72D		927	US	4 NOV	93.3	81.99	439	436	
1964 73A	MARINER 3	923	US	5 NOV	HELIOCENTRIC ORBIT				
1964 74A	EXPLORER 23	924	US	6 NOV	99.2	51.96	974	465	$136.078$136.861
1964 76A	EXPLORER 24	931	US	21 NOV	115.4	81.44	2368	582	136.709
1964 76B	EXPLORER 25	932	US	21 NOV	116.2	81.37	2494	530	$136.292$136.860
1964 76C		933	US	21 NOV	116.2	81.36	2489	537	
1964 76D		934	US	21 NOV	116.3	81.42	2495	539	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1964 LAUNCHES (CONT'D)									
1964 76E		935	US	21 NOV.	116.2	81.34	2488	532	
1964 76F		936	US	21 NOV	115.2	81.33	2353	574	
1964 76G		937	US	21 NOV	116.0	81.37	2460	547	
1964 76H		939	US	21 NOV	114.8	81.34	2324	572	
1964 76I		940	US	21 NOV	116.0	81.36	2476	529	
1964 76J		941	US	21 NOV	116.2	81.34	2475	546	
1964 76K		960	US	21 NOV	116.4	81.47	2442	604	
1964 76L		1411	US	21 NOV	116.3	81.38	2485	548	
1964 77A	MARINER 4	938	US	28 NOV	HELIOCENTRIC ORBIT				
1964 77B		942	US	28 NOV	HELIOCENTRIC ORBIT				
1964 78C	ZOND 2	945	USSR	30 NOV	HELIOCENTRIC ORBIT				
1964 83A		953	US	13 DEC	106.0	89.97	1072	1015	
1964 83B		956	US	13 DEC	106.3	90.00	1086	1027	
1964 83C		959	US	13 DEC	106.3	89.99	1091	1023	135.650$162$324
1964 83D		965	US	13 DEC	106.3	89.99	1090	1025	$150$400
1964 83E		966	US	13 DEC	106.3	89.97	1086	1028	
1964 83F		967	US	13 DEC	106.3	89.98	1090	1023	
1964 83G		1099	US	13 DEC	106.3	89.99	1089	1025	
1964 83H		1528	US	13 DEC	106.3	89.97	1083	1027	
1964 83J		1608	US	13 DEC	106.3	89.99	1090	1023	
1964 86A	EXPLORER 26	963	US	21 DEC	450.7	19.93	25901	284	136.273
1965 LAUNCHES									
1965 03A		973	US	19 JAN	97.6	98.72	830	461	
1965 04A	TIROS 9	978	US	22 JAN	119.2	96.37	2580	708	$136.234$136.198
1965 04B		979	US	22 JAN	119.3	96.41	2593	707	
1965 04C		1312	US	22 JAN	118.0	96.37	2511	676	
1965 04D		1313	US	22 JAN	120.4	96.41	2667	731	
1965 06A	COSMOS 53	983	USSR,	30 JAN	93.6	48.70	685	209	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 07A	ORB.SOL.OBS. 2	987	US	3 FEB	96.5	32.86	624	547	136.713
1965 07B		988	US	3 FEB	96.5	32.86	635	547	
1965 08A		1000	US	11 FEB	145.6	32.13	2801	2777	
1965 08B		1001	US	11 FEB	145.4	32.14	2796	2760	
1965 08C		1002	US	11 FEB	145.7	32.13	2806	2779	
1965 09A	PEGASUS 1	1085	US	16 FEB	97.0	31.75	727	497	$136.410;136.890
1965 09B		1088	US	16 FEB	97.1	31.74	734	497	
1965 10B		1087	US	17 FEB	BARYCENTRIC ORBIT				
1965 11A	COSMOS 54	1089	USSR	21 FEB	103.3	56.03	1570	257	
1965 11B	COSMOS 55	1090	USSR	21 FEB	103.2	56.01	1558	260	
1965 11C	COSMOS 56	1091	USSR	21 FEB	102.1	56.04	1454	256	
1965 11D		1092	USSR	21 FEB	105.3	56.03	1749	270	
1965 14A	COSMOS 58	1097	USSR	26 FEB	96.8	65.03	622	587	
1965 14B		1098	USSR	26 FEB	96.9	65.03	700	518	
1965 16A	GREB	1271	US	9 MAR	103.5	70.07	940	910	
1965 16B	GRAVITY GRADIENT II	1244	US	9 MAR	103.5	70.07	941	909	
1965 16C	GRAVITY GRADIENT III	1292	US	9 MAR	103.5	70.04	941	909	136.766
1965 16D	SOLAR RAD.	1291	US	9 MAR	103.5	70.07	941	909	136.800
1965 16E	EGRS III	1208	US	9 MAR	103.5	70.09	942	906	136.840
1965 16F	OSCAR III	1293	US	9 MAR	103.5	70.09	942	907	
1965 16G	SURCAL	1310	US	9 MAR	103.4	70.09	935	909	
1965 16H	DODECAHEDRON	1272	US	9 MAR	103.5	70.09	942	907	
1965 16J	ROCKET BODY	1245	US	9 MAR	103.5	70.10	940	907	
1965 17B	EGRS II	1250	US	11 MAR	97.0	89.98	952	282	
1965 17C		1228	US	11 MAR	96.7	89.98	920	279	
1965 17D		1248	US	11 MAR	96.6	90.00	915	283	
1965 20A	COSMOS 61	1267	USSR	15 MAR	103.0	56.00	1540	261	
1965 20B	COSMOS 62	1268	USSR	15 MAR	103.4	56.04	1571	259	
1965 20C	COSMOS 63	1269	USSR	15 MAR	102.2	56.00	1457	260	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 20D-20EE***			USSR	15 MAR					
1965 21A		1273	US	18 MAR	97.5	98.99	756	528	
1965 21C		1289	US	18 MAR	97.5	98.99	758	526	
1965 21E		1376	US	18 MAR	96.4	98.99	655	520	
1965 21F		1463	US	18 MAR	98.6	99.02	858	530	
1965 23B		1298	US	21 MAR	BARYCENTRIC ORBIT				
1965 27A		1314	US	3 APR	111.5	90.21	1321	1274	
1965 27B	EGRS IV	1315	US	3 APR	111.4	90.20	1324	1266	
1965 27C		1316	US	3 APR	111.5	90.19	1314	1278	
1965 27D		1389	US	3 APR	111.5	90.18	1316	1278	
1965 27E		1399	US	3 APR	111.5	90.22	1323	1272	
1965 28A	EARLY BIRD	1317	US	6 APR	1437.3	.13	36596	35025	
1965 28B	ROCKET BODY	1318	US	6 APR	CURRENT ELEMENTS NOT MAINTAINED				
1965 30A	MOLNIA 1	1324	USSR	23 APR	720.0	65.56	39601	862	
1965 30D		1967	USSR	23 APR	702.6	65.09	38751	854	
1965 31B		1329	US	28 APR	95.1	95.19	549	497	
1965 32A	EXPLORER 27	1328	US	29 APR	107.8	41.16	1311	940	$136.740$162$324 $20$40$41$360
1965 32B		1358	US	29 APR	107.8	41.17	1315	936	
1965 32C		1995	US	29 APR	106.7	41.09	1309	836	
1965 32D		2011	US	29 APR	109.0	41.18	1301	1060	
1965 34A		1359	US	6 MAY	157.0	32.12	3740	2782	
1965 34B		1360	US	6 MAY	309.9	32.21	14798	2784	
1965 34C		1361	US	6 MAY	145.6	32.13	2797	2777	
1965 38A		1377	US	20 MAY	100.0	98.59	964	555	
1965 38B		1378	US	20 MAY	100.0	98.59	969	551	
1965 38C		1379	US	20 MAY	99.9	98.62	957	556	
1965 38D		1380	US	20 MAY	95.5	98.90	597	470	
1965 38E		1461	US	20 MAY	101.0	98.63	1061	549	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 38F		1462	US	20 MAY	98.9	98.57	865	553	
1965 38G		1475	US	20 MAY	100.1	98.58	981	551	
1965 39A	PEGASUS 2	1381	US	25 MAY	97.1	31.76	734	507	$136.410;136.889
1965 39B	ROCKET BODY	1385	US	25 MAY	97.2	31.75	737	510	
1965 42A	EXPLORER 28	1388	US	29 MAY	8558.8	33.86	264247	196	136.125
1965 44A	LUNIK 6	1393	USSR	8 JUN	HELIOCENTRIC ORBIT				
1965 48A		1420	US	24 JUN	106.9	90.00	1142	1028	
1965 48B		1425	US	24 JUN	106.9	89.97	1137	1031	
1965 48C		1428	US	24 JUN	106.6	89.97	1107	1032	
1965 48D		1435	US	24 JUN	106.9	90.00	1139	1033	
1965 50A		1422	US	25 JUN	94.6	107.65	504	494	
1965 51A	TIROS 10	1430	US	2 JUL	100.7	98.61	838	743	$136.232$136.924
1965 51B		1433	US	2 JUL	100.7	98.65	845	742	
1965 51C		1440	US	2 JUL	99.3	98.50	847	608	
1965 51D		1529	US	2 JUL	102.0	98.69	887	824	
1965 52A	COSMOS 70	1431	USSR	2 JUL	95.7	48.74	881	216	
1965 52B		1432	USSR	2 JUL	93.0	48.73	608	218	
1965 53A	COSMOS 71	1441	USSR	16 JUL	95.2	56.07	544	516	
1965 53B	COSMOS 72	1442	USSR	16 JUL	95.9	56.07	579	545	
1965 53C	COSMOS 73	1443	USSR	16 JUL	95.6	56.08	549	543	
1965 53D	COSMOS 74	1444	USSR	16 JUL	96.2	56.05	609	545	
1965 53E	COSMOS 75	1445	USSR	16 JUL	96.5	56.05	637	546	
1965 53F		1448	USSR	16 JUL	96.6	56.09	640	549	
1965 53G		1449	USSR	16 JUL	95.0	56.05	533	498	
1965 53H		1473	USSR	16 JUL	96.6	56.04	651	544	
1965 55A		1447	US	17 JUL	94.4	70.17	512	466	
1965 55B		1452	US	17 JUL	92.9	70.09	425	410	
1965 55C		1455	US	17 JUL	93.5	70.15	460	433	
1965 55D		1744	US	17 JUL	91.1	70.13	304	304	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 56A	ZOND 3	1454	USSR	18 JUL	HELIOCENTRIC ORBIT				
1965 58A		1458	US	20 JUL	6695.0	34.81	116970	105610	
1965 58B		1459	US	20 JUL	6700.3	34.45	122195	100511	
1965 58C		1460	US	20 JUL	2595.4	36.88	111793	566	136.768
1965 60A	PEGASUS 3	1467	US	30 JUL	95.1	28.87	535	510	$136.410;136.590
1965 60B		1468	US	30 JUL	95.2	28.87	534	518	
1965 62B		1472	US	3 AUG	94.7	107.36	505	501	
1965 63A	EGRS 5	1506	US	10 AUG	122.2	69.24	2427	1135	136.840
1965 63B		1502	US	10 AUG	122.2	69.25	2426	1137	
1965 64A	CENTAUR 6	1503	US	11 AUG	HELIOCENTRIC ORBIT				
1965 65A		1504	US	13 AUG	108.1	90.03	1193	1088	
1965 65B		1508	US	13 AUG	107.9	90.01	1159	1102	
1965 65C		1510	US	13 AUG	108.1	90.02	1196	1082	
1965 65D		1511	US	13 AUG	108.1	90.00	1192	1089	
1965 65E		1512	US	13 AUG	108.1	90.02	1195	1087	
1965 65F		1514	US	13 AUG	108.1	90.02	1192	1091	
1965 65G		1515	US	13 AUG	108.1	90.00	1191	1085	
1965 65H		1520	US	13 AUG	108.1	90.01	1196	1087	
1965 65J		1521	US	13 AUG	108.1	90.02	1202	1079	
1965 65K		1522	US	13 AUG	108.1	90.02	1196	1089	
1965 65L		1577	US	13 AUG	108.1	90.06	1199	1084	
1965 70A	COSMOS 80	1570	USSR	3 SEP	115.0	56.08	1554	1354	
1965 70B	COSMOS 81	1571	USSR	3 SEP	115.3	56.09	1552	1389	
1965 70C	COSMOS 82	1572	USSR	3 SEP	115.7	56.09	1560	1412	
1965 70D	COSMOS 83	1573	USSR	3 SEP	116.1	56.10	1567	1440	
1965 70E	COSMOS 84	1574	USSR	3 SEP	116.4	56.08	1577	1464	
1965 70F		1575	USSR	3 SEP	114.6	56.15	1516	1357	
1965 72A		1580	US	10 SEP	101.9	98.64	1050	654	
1965 72B		1581	US	10 SEP	101.4	98.86	988	662	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 72C		1582	US	10 SEP	101.2	98.78	1008	625	
1965 72D		1583	US	10 SEP	101.9	98.63	1053	651	
1965 72E		1931	US	10 SEP	103.3	98.63	1186	649	
1965 72F		1932	US	10 SEP	100.7	98.64	939	647	
1965 73A	COSMOS 86	1584	USSR	18 SEP	115.1	56.09	1637	1279	
1965 73B	COSMOS 87	1585	USSR	18 SEP	115.5	56.05	1650	1303	
1965 73C	COSMOS 88	1586	USSR	18 SEP	115.8	56.09	1663	1324	
1965 73D	COSMOS 89	1587	USSR	18 SEP	116.2	56.08	1681	1344	
1965 73E	COSMOS 90	1588	USSR	18 SEP	116.7	56.08	1689	1373	
1965 73F		1589	USSR	18 SEP	116.8	56.11	1695	1380	
1965 73G		1590	USSR	18 SEP	116.5	56.08	1683	1365	
1965 73H		1591	USSR	18 SEP	116.7	56.04	1692	1373	
1965 73J		1617	USSR	18 SEP	117.5	56.13	1762	1376	
1965 73K		1618	USSR	18 SEP	117.7	56.17	1768	1388	
1965 78A		1613	US	5 OCT	125.7	144.28	3451	412	
1965 78B		1616	US	5 OCT	125.6	144.28	3445	413	
1965 80A	2nd MOLNIYA I	1621	USSR	13 OCT	716.6	64.93	39735	560	
1965 81A	OGO 2	1620	US	14 OCT	104.3	87.36	1509	421	$136.200$400.250 $400.850
1965 81B		1625	US	14 OCT	104.3	87.36	1505	419	
1965 82A	TITAN 3 C-4	1624	US	15 OCT	100.0	32.31	783	728	
1965 82B-82KB****			US	15 OCT					
1965 84E		2098	USSR	19 OCT	93.9	48.42	516	411	
1965 89A	EXPLORER 29	1726	US	6 NOV	120.3	59.38	2273	1119	$136.830$162 $324$972
1965 89B		1729	US	6 NOV	120.3	59.41	2274	1116	
1965 91A	VENERA 2	1730	USSR	12 NOV	HELIOCENTRIC ORBIT				
1965 92D		1736	USSR	16 NOV	HELIOCENTRIC ORBIT				
1965 93A	EXPLORER 30	1738	US	19 NOV	100.8	59.71	900	693	136.530
1965 93B		1739	US	19 NOV	100.8	59.73	873	717	

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 93C		2013	US	19 NOV	100.3	59.69	839	707	
1965 93D		2088	US	19 NOV	101.4	59.74	921	729	
1965 95A	COSMOS 91	1777	USSR	26 NOV	106.1	48.43	1871	215	
1965 95B		1779	USSR	26 NOV	105.5	48.49	1794	213	
1965 96A	A-1	1778	FRENCH	26 NOV	108.7	34.25	1799	529	
1965 96B		1805	FRENCH	26 NOV	108.8	34.25	1810	526	
1965 96C		1938	FRENCH	26 NOV	105.7	34.25	1568	482	
1965 96D		1996	FRENCH	26 NOV	108.6	34.25	1793	525	
1965 98A	ALOUETTE 2	1804	CANADA	29 NOV	121.4	79.82	2986	505	$136.080 $136.590 136.980
1965 98B	EXPLORER 31	1806	US	29 NOV	121.3	79.81	2975	504	136.380
1965 98C		1807	US	29 NOV	121.3	79.83	2978	506	
1965 98D		1808	US	29 NOV	121.3	79.82	2978	505	
1965 98E		1944	US	29 NOV	121.4	79.83	2988	504	
1965 98F		1948	US	29 NOV	121.4	79.90	2982	507	
1965 98G		1951	US	29 NOV	121.3	79.74	2974	503	
1965 98H		2092	US	29 NOV	121.4	79.88	2984	504	
1965 101A	FR-1	1814	FRENCH	6 DEC	99.9	75.88	762	747	$136.350 136.800
1965 101B		1815	US	6 DEC	100.0	75.87	768	753	
1965 101C		1934	US	6 DEC	99.9	76.47	783	731	
1965 101D		1935	US	6 DEC	99.6	75.26	782	694	
1965 105A	PIONEER 6	1841	US	16 DEC	HELIOCENTRIC ORBIT				
1965 105B		1842	US	16 DEC	99.9	30.17	1234	271	
1965 106A	COSMOS 100	1843	USSR	17 DEC	97.6	65.01	657	630	
1965 106B		1844	USSR	17 DEC	97.7	65.00	733	568	
1965 107A	COSMOS 101	1846	USSR	21 DEC	91.6	48.76	448	247	
1965 107B		1847	USSR	21 DEC	89.3	48.76	224	204	
1965 108A	TITAN 3 C-8	1863	US	21 DEC	589.5	26.36	33616	199	
1965 108B	LES 4	1870	US	21 DEC	578.0	26.50	33096	216	
1965 108C	OSCAR IV	1902	US	21 DEC	579.4	26.73	32977	161	
1965 108D	LES 3	1941	US	21 DEC	566.9	26.47	27120	200	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 109A		1864	US	22 DEC	105.0	89.10	1082	913	
1965 109B		1865	US	22 DEC	105.0	89.11	1080	914	
1965 109C		2086	US	22 DEC	103.8	89.17	982	893	
1965 112A	COSMOS 103	1868	USSR	28 DEC	97.0	56.04	630	599	
1965 112B-112Q*****			USSR	28 DEC					
1966 LAUNCHES									
1966 04A	COSMOS 106	1949	USSR	25 JAN	92.5	48.38	507	280	
1966 04B		1950	USSR	25 JAN	92.0	48.40	465	273	
1966 05A		1952	US	28 JAN	105.9	89.71	1216	862	
1966 05B		1953	US	28 JAN	105.9	89.71	1213	864	
1966 05C		2140	US	28 JAN	107.9	89.90	1393	868	
1966 05D		2141	US	28 JAN	104.5	89.75	1095	846	
1966 06D		2001	USSR	31 JAN	BARYCENTRIC ORBIT				
1966 08A	ESSA-1	1982	US	3 FEB	100.3	97.90	844	.703	$136.230$136.920
1966 08B		1983	US	3 FEB	100.6	97.89	869	703	
1966 08C		2085	US	3 FEB	99.2	97.76	751	691	
1966 08D		2118	US	3 FEB	101.4	98.05	955	693	
1966 09A		1997	US	9 FEB	94.8	82.08	511	507	
1966 09B		2003	US	9 FEB	94.6	82.08	503	496	
1966 09C		2004	US	9 FEB	94.6	82.10	500	499	
1966 11A	COSMOS 108	2002	USSR	11 FEB	94.7	48.86	780	219	
1966 11B		2007	USSR	11 FEB	93.4	48.84	650	215	
1966 13A	D-1A	2016	FRENCH	17 FEB	118.7	34.07	2740	501	
1966 13B		2017	FRENCH	17 FEB	118.7	34.08	2747	498	
1966 13C		2018	FRENCH	17 FEB	119.2	34.01	2715	571	
1966 13D		2020	FRENCH	17 FEB	118.4	34.27	2725	488	
1966 13E		2021	FRENCH	17 FEB	118.6	34.06	2697	540	
1966 13F		2023	FRENCH	17 FEB	117.8	34.03	2673	488	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1966 LAUNCHES (CONT'D)									
1966 15B		2071	USSR	22 FEB	91.2	51.82	670	174	
1966 16A	ESSA 2	2091	US	28 FEB	113.5	100.98	1418	1356	$136.770$137.500
1966 16B		2096	US	28 FEB	113.5	100.98	1420	1356	
1966 19A	GEMINI AGENA TARGET VEHICLE	2104	US	16 MAR	92.7	28.87	406	399	
1966 20C		2115	US	16 MAR	89.5	28.85	226	226	
1966 21B		2108	USSR	17 MAR	91.1	72.08	438	214	
1966 24A		2119	US	26 MAR	105.3	89.73	1128	892	
1966 24B		2120	US	26 MAR	105.3	89.74	1126	895	
1966 25A	OV1-4	2121	US	30 MAR	104.1	144.53	1013	887	
1966 25B	OV1-5	2122	US	30 MAR	105.6	144.67	1059	987	
1966 25C		2123	US	30 MAR	105.6	144.67	1060	985	
1966 25D		2124	US	30 MAR	104.1	144.55	1014	884	
1966 26A		2125	US	31 MAR	100.5	98.63	936	632	
1966 26B		2129	US	31 MAR	100.5	98.63	937	632	
1966 27A	LUNA 10	2126	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27D		2130	USSR	31 MAR	HELIOCENTRIC ORBIT				
1966 27E		2131	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27F		2132	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 28B		2134	USSR	6 APR	89.2	72.87	246	199	
1966 29A		2136	US	7 APR	89.5	75.07	301	190	
1966 30A	SURVEYOR MODULE	2139	US	8 APR	89.6	30.77	319	175	
1966 30B		2143	US	8 APR	89.6	30.74	277	165	
1966 31A	OAO 1	2142	US	8 APR	100.9	35.02	804	792	136.440$136.260 $400.550
1966 31B		2144	US	8 APR	100.8	35.03	805	787	

DECAYED OBJECTS

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	DECAY
PLEASE ADD THE FOLLOWING TO THE DECAYED OBJECTS LISTS:					
1965 11E		1094	USSR	21 FEB	8 APR 66
1966 27B		2127	USSR	31 MAR	4 APR 66
1966 27C		2128	USSR	31 MAR	2 APR 66
1966 28A	COSMOS 114	2133	USSR	6 APR	14 APR 66
1966 28C		2135	USSR	6 APR	10 APR 66
1966 28D		2137	USSR	6 APR	10 APR 66
1966 28E		2138	USSR	6 APR	9 APR 66

FOLLOWING ARE THE INITAL ELEMENTS OF OBJECTS WHOSE LAUNCH AND ORBIT DECAY OCCURED WITHIN THIS REPORTING PERIOD:

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	PERIOD MINTUES	INCLI-NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1966 27B		2127	USSR	88.7	51.70	225	200	
1966 27C		2128	USSR	88.3	51.82	199	186	
1966 28A	COSMOS 114	2133	USSR	90.0	72.90	340	205	
1966 28C		2128	USSR	88.3	51.82	199	186	
1966 28D		2137	USSR	89.8	73.00	337	200	
1966 28E		2138	USSR	89.9	72.90	342	201	

* APHELION PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC

** TWO HUNDRED AND TEN METAL OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 AND 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DECAYE CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

*** ONE HUNDRED AND TWENTY TWO OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1965 20A, 1965 20B AND 1965 20C. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

**** TWO HUNDRED AND FORTY ONE OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 82A. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.

***** FOURTEEN OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 112A.

$ TRANSMITTING ON COMMAND ONLY.

& TRANSMITTING WHEN IN SUNLIGHT ONLY.

\# NO CATALOGUE NUMBER ASSIGNED.

30 APR 66 42437

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